

1. A method for conducting a purchasing agreement for goods and services between a consumer and a merchant through a trusted a third party and using a wireless network comprising:

generating, by the consumer, a first view of the agreement and transmitting the first view of the agreement to the third party;

generating, independently by the merchant , a second view of the agreement and transmitting the second view of the agreement to the third party; and

receiving, by the third party, comprising a Secure Transaction Server, the consumer view of the agreement and the merchant view of the agreement, verifying identities of the merchant and the consumer and that the details of the independently generated views of the agreements are consistent and taking action to execute the purchasing agreement if the conditions are satisfied.

2. The method of claim 1, wherein the purchasing agreement includes the ordering of and paying for goods or services.

3. The method of claim 2, further comprising conducting purchases using local wireless communication between a consumer operated mobile device and a merchant operated device and a Secure transaction Server device, comprising the trusted third party, and parts of the messages communicated between the devices and the secure transaction server are encrypted using the Secure Transaction Protocol.

4. The method as in claim 3, wherein the trusted third party returns a token as receipt of payment that is presented by the consumer to the merchant to obtain the paid-for services at a later time

5. The method as in claim 4 for a consumer to conduct a purchase transaction with a merchant using a consumer operated mobile device in wireless local communication with a merchant device, comprising:

discovering, by the consumer device, the merchant device via the network;

connecting, by the consumer device, to the merchant device via the network;

selecting, by the consumer using the consumer device, the goods and services to be purchased;

obtaining a purchase order from the merchant containing the transaction details such as amount and

authorizing by the consumer using the consumer device, payment to the merchant for the goods and services through the secure transaction server.

6. The method of claim 5, wherein the discovering comprising automatically scanning the wireless network or manually discovering one or more merchant devices and the consumer then selecting one of the merchant devices from a list of merchant devices presented by the consumer device.

7. The method of claim 6, wherein the connecting comprising connecting the consumer device to the selected merchant device through the wireless local communication network.

8. The method of claim 7, wherein the selecting comprising selecting one of the goods or services from a list of the goods and services of the merchant presented by the consumer device.

9. The method of claim 8, further comprising:

transmitting by the consumer device a request for a purchase order for items to be purchased to the merchant device;

preparing by the merchant device a purchase order with information including pricing and transmitting the purchase order to the consumer device; and

upon receiving the purchase order by the consumer device, authorizing by the consumer device payment for the purchase order.

10. The method of claim 9, further comprising verifying the merchant device by the secure transaction server before the purchase order is transmitted to the consumer device.

11. The method of claim 10, further comprising verifying the merchant device by the secure transaction server after the purchase order is transmitted to the consumer device.

12. The method of claim 11, further comprising:

indicating, by the consumer, intent to proceed with payment for the purchase order via a

command entered into the consumer device;

upon receiving the command and a positive result of merchant verification by the secure transaction server, the consumer device indicating the intent to authorize payment and transmitting the intent to the secure transaction server via the merchant; and

upon receiving a positive result of the verification by the secure transaction server, the merchant indicating the intent to authorize acceptance of payment and transmitting the consumer intent and the merchant intent to the secure transaction server.

13. The method of claim 12, further comprising:

upon receiving the authorization for payment from the consumer and authorization for acceptance from the merchant, interacting by the secure transaction server with a payment service to cause the transfer of funds or commitment for transfer of funds from the consumer to the merchant to occur; and

upon completion of the transfer of funds, transmitting by the secure transaction server, a confirmation to the consumer and the merchant.

14. The method of claim 13 wherein the purchase is for services (and certain goods) and the Secure Transaction Server causes a token to be sent to the consumer and the merchant as proof of payment and that can be presented when the service is activated or consumed, or goods received.

15. The method of claim 13 wherein the transaction comprises the purchase of physical goods.

16. The method of claim 13 wherein the discovery comprising:

obtaining by the consumer a list of available merchants and contact information to be displayed on his device

selecting from the consumer's device the merchant for which a purchase transaction is desired

17. The method of claim 13 wherein the connecting comprising:

directing by the consumer the consumer device to establish wireless communication using the contact information of the selected merchant; and

accessing by the consumer device the retail application of the merchant device.

18. The method of claim 13 wherein the selecting goods and services comprising:  
providing inputs to the retail application through the consumer device to arrive at the intended list of purchased goods and services from the selected merchant through ordering or other physical means provided by the merchant including scanning,  
providing, by the merchant, the accumulated purchase price of the selected goods and services.

19. The method of claim 15, wherein the directing of payment comprising:  
optionally verifying, by the consumer, the merchant with the Secure Transaction Server (STS),  
acquiring, by the consumer, the purchase order from the merchant,  
optionally verifying, by the consumer, the merchant with the STS,  
providing, by the consumer, personal identification information to the consumer device and requesting, by the consumer, a preauthorization by identification information sending a request-transaction (preauthorization) to the STS,  
providing, by the merchant, personal identification information to the merchant device and sending a request-transaction to the STS,  
responding, by the STS, positively to the consumer and the merchant if the identities and details of the request transaction are verified, and including a listing of accounts to the consumer,  
authorizing, by the consumer, the payment to the STS including account selection by an authorization message,  
authorizing, by the merchant, the sale to the STS including account selection by an authorization message,  
causing, by the STS, the payment from the consumer account to the merchant account if the parties and details of the payment transaction are verified,  
responding, by the STS, to the merchant and the consumer with the results of payment transaction.

20. The method as in claim 19 where the consumer combines the request (preauthorization) and authorization as follows:  
providing, by the consumer, personal identification information to the consumer

device and issuing a request-authorization of the payment to the STS including account selection,

providing, by the merchant, personal identification information to their device and issuing a request-authorization of the sale to the STS including account selection,

causing, by the STS, the payment from the consumer account to the merchant account if the parties and details of the payment transaction are verified,

responding, by the STS, to the merchant and the client with the results of the payment transaction.

21. The method as in claim 14 wherein the direction of payment comprising:

optionally verifying, by the consumer, the merchant with the STS,

acquiring, by the consumer, the purchase order from the merchant,

optionally verifying, by the consumer, the merchant with the STS,

providing, by the consumer, personal identification information to the consumer device and sending a request-transaction (preauthorization) to the STS,

providing, by the merchant, personal identification information to the merchant device and sending a request-transaction to the STS,

responding, by the STS, to the preauthorization request-transactions if the identities and details of the request transaction are verified, and including a listing of accounts to the consumer,

sending, by the consumer sending an authorization for the payment to the STS including account selection,

authorizing, by the merchant, the sale to the STS including account selection,

causing, by the STS, the payment from the consumer account to the merchant account if the parties and details of the payment transaction are verified,

responding, by the STS, to the merchant and the consumer with the results of the payment transaction,

generating, by the merchant, a service token and sending to the consumer representing the payment for service,

sending, by the consumer, an acknowledgement to the merchant containing an encrypted version of the token,

requesting, by the merchant, a token certificate from the STS using the encrypted consumer token,

generating, by the STS, a token certificate and transmitting a copy to the

merchant, and

presenting, by the consumer, the token to the merchant upon consumption of the service.

22. The method as in claim 21, wherein the consumer combines the request (preauthorization) and authorization comprising:

providing, by the consumer, personal identification information to the consumer device and sending a request-authorization of the payment to the STS including account selection,

providing, by the merchant, personal identification information to the consumer device and issuing a request-authorization of the sale to the STS including account selection,

causing, by the STS, the payment from the consumer account to the merchant account if the parties and details of the payment transaction are verified,

responding, by the STS, to the merchant and the consumer with the results of the payment transaction,

generating, by the merchant, a service token and sending to the consumer representing the payment for service,

sending, by the consumer, an acknowledgement to the merchant containing an encrypted version of the token,

requesting, by the merchant, a token certificate from the STS using the encrypted consumer token,

generating, by the STS, a token certificate and transmitting a copy to the merchant, and

presenting, by the consumer, the token to the merchant upon consumption of the service.

23. The method as in claim 21, wherein the consumer explicitly requests a token and combines the authorization and token creation comprising:

providing, by the consumer, personal identification information to the consumer device and creating a request-transaction (preauthorization) to the STS,

providing, by the merchant, personal identification information to the consumer device and creating a request-transaction to the STS,

responding, by the STS, to the preauthorization request-transactions if the

identities and details of the request transaction are verified, and including a listing of accounts to the consumer,

sending, by the consumer, a request-token request to the merchant,

generating, by the merchant, a token and sending to the consumer representing the unvalidated payment for service;

sending, by the consumer, a request-authorization-with-token request to the STS containing an encrypted version of the token,

authorizing, by the merchant, the sale by sending a request-authorization-with-token to the STS including account selection,

causing, by the STS, the payment from the consumer account to the merchant account if the parties and details of the payment transaction are verified,

generating, by the STS, a token certificate and transmitting a copy to the merchant, and

presenting, by the consumer, the token to the merchant upon consumption of the service.

24. The method as in claim 21, wherein the consumer uses the explicit token request, and combines the preauthorization, authorization and token creation comprising:

creating and sending, by the consumer, a request-token to the merchant,

generating, by the merchant, a token and sending the token by the merchant to the consumer,

providing, by the consumer, personal identification information to the consumer device and generating a request-authorization-with-token with account selection and containing the encrypted token to the STS,

providing, by the merchant, personal identification information to the merchant device and generating a request-authorization-with-token with account selection to the STS,

causing, by the STS, the payment from the consumer account to the merchant account if the parties and details of the payment transaction are verified,

creating, by the STS, a token certificate for representing the payment for the service,

responding, by the STS, to the consumer with a message containing the results of the payment transaction, and

responding, by the STS, to the merchant with a message containing the results

of the payment transaction and the token certificate,  
the consumer presenting the token to the merchant upon consumption of the service.

25. The method as in claim 21 wherein the consumer combines the preauthorization, authorization and token creation comprising:

- providing, by the consumer, personal identification information to their device and generating a request-authorization-token with account selection to the STS,

- providing, by the merchant, personal identification information to their device and generating a request-authorization-token with account selection to the STS,

- causing, by the STS, the payment from the consumer account to the merchant account if the parties and details of the payment transaction are verified,

- creating, by the STS, a service token and corresponding token certificate for representing the payment for the service,

- responding, by the STS, to the merchant with a message including the results of the payment transaction and the token certificate, and

- responding, by the STS, to the consumer with a message including the results of the payment transaction and the token,

the consumer presenting the token to the merchant upon consumption of the service.

26. The method as in claim 21, wherein the consumer presenting the token and being validated by the merchant and comprising:

- encrypting, by the consumer device, a service token, creating a token certificate, and submitting the token certificate to merchant,

- determining, by the merchant device, if a valid copy of the token certificate has been previously stored and not used, if valid then the service is provided and token certificate deleted from merchant storage.

27. The method as in claim 21, wherein the consumer presenting the token and being validated by the merchant and the STS comprising:

- encrypting, by the consumer device, a service token, creating a token certificate, and submitting the token certificate to the STS,

- determining, by the STS, whether a valid copy of token certificate has been previously stored and not used, if valid then marking the token certificate as used and



providing a response to the merchant,  
providing, by the merchant, a service to the consumer

28. The method as in any one of claims 14, 15 and 21, wherein the consumer acquiring the purchase order includes implicit verification of the merchant identity by the STS and comprising:

- transmitting, by the consumer device, a request for a purchase order for the items to be purchased to the merchant device,
- preparing, by the merchant device, a purchase order with relevant information such as pricing,
- transmitting, by the merchant device, the purchase order (PO) to the STS,
- verifying, by the STS, the merchant identity and creating an STS version of the PO from the merchant PO (STS-PO), and
- transmitting, by the STS, the STS-PO to the merchant

the merchant transmits the STS-PO to the consumer device, so that upon receipt of the STS-PO the consumer has positive verification that the merchant is a registered UPTF merchant.

29. The method as in any one of claims 14, 15 and 21, wherein the verifying the merchant comprising:

- obtaining, by the consumer, the merchant legal name and address from a merchant device advertisement, or a directory service,
- issuing, by the client, a merchant verification transaction including the merchant information and merchant device identifier and sending the merchant verification transaction to the merchant device,
- forwarding, by the merchant device, to the STS the merchant information and the merchant device identity,
- verifying, by the STS, the merchant information and the merchant device identity with its records,
- returning, by the STS, a merchant verification response message to the merchant for forwarding to the consumer,
- receiving, by the consumer, the message indicating whether the merchant is valid.

30. The method as in any one of claims 14, 15 and 21 wherein the consumer acquiring the purchase order comprising:

sending, by the consumer, an explicit generate-purchase-order to the merchant,  
creating, by the merchant, a purchase order corresponding to the items selected by the consumer and sending the purchase order to the consumer.

31. The method as in any one of claims 21, 22, 23, 24, 25, 26, and 27 wherein of the presenting the token to the merchant comprising converting, by the consumer device, the token to a barcode and displaying the token represented as a barcode on its display, and  
scanning, by the merchant device, the barcode, converting the barcode to a token and then checking the token.